garden cuttings

a monthly newsletter for the discerning gardener

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New Days - Old Ways

Last month, when writing about this year's International Horticulture Congress, I made a passing reference to what one speaker had said about the need for educating amateur gardeners in some of the older skills and techniques - like collecting and trapping insect pests rather than spraying them with poisonous chemicals.

The important point is that this talk was given by an eminent horticultural scientist to an International Congress. Scientists, therefore, in their continual quest for knowledge, are not unmindful of the elementary skills that have served well past generations of gardeners.

There is an important lesson here for all of us, before we become totally absorbed in new skills or bedazzled by new products. Are we perhaps losing sight of basic principles - like the need for hygiene in the garden, for removing and destroying dead flowers, plants and weeds, split or rotten stakes and canes, and other debris? Are we forgetting that birds and small reptiles are the best pest exterminators, and earthworms the best soil improvers? And do we sometimes forget that old and rather elementary precaution of giving our deciduous shrubs - and that includes roses - a winter wash?

Gardening, too, like all human activities, has collected a good deal of folklore during the ages, but not all folklore can be lightly dismissed. Rhubarb can keep weeds out of the vegetable garden, and nasturtiums can keep aphids away from roses - so can garlic, but the close association of garlic with roses is not to everyone's taste. Most gardeners know about marigolds and nematodes, but the wild species *Tagetes minuata* is also said to inhibit the spread of pernicious weeds like convolvulus and ground elder. We need to know more about these allelophathic plants, as they are called, in other words plants that have an inhibitory effect on unwelcome invaders. It has been suggested that allelopathy may be the 'Ying' to the 'Yang' of companion planting, so strongly advocated by the organic brigade.

Perhaps what is needed, as well as research into new concepts, is research into some of the old ideas. It could be, in the long term, more fruitful than the development of more chemicals.

Tim North

Cats and Catnip

Catnip *(Nepeta cataria)* is recommended as 'good for hysteria' in humans, but is said to send cats into a state of 'erotic euphoria'.

They chew its aromatic leaves, they roll over the plant in a frenzy and will even tear it out of the ground. Seedlings and young plants may therefore need protecting with wire netting, but by the time they have reached maturity they will be robust enough to stand up to these attentions.

Nepeta cataria should not be confused with *Nepeta mussinii,* which is the mauve-flowered ornamental plant frequently used in flower borders, and commonly called 'Catmint'.

Nepeta cataria is a hardy perennial with grey-green downy leaves and erect flower stems, topped with whorls of white flowers that are spotted with red on the lower lip.

CAT IN CATNIP

BOOK REVIEW

The Years of Endeavour by Robert F.G. Swinbourne F.L.S. published by the South Australian Association of Nurserymen, Adelaide 1982,

Garden historians have been set a very high standard for research and detail by this recently published work.

Beginning with an advertisement from the first edition of the South Australian Gazette and Colonial Register, issued in London before the settlers left for the new colony in 1836, the book chronicles the nursery industry since the first days of South Australia. Each of the eight chapters is broadly set in a specific time period but instances of long-established nurseries are dealt with in detail from their commencement to the present day in the appropriate chapter. Reference to these in later eras is brief, usually relating to specific developments.

There is a most comprehensive bibliography complete with sources, an interesting chapter on the nurserymen and seedsmen's associations, and a thorough index.

Some non-members of the Nurserymen's Association have been given scant attention in the chapter on the industry at present, which is regrettable since they represent some of the more interesting nurseries which provide highly personalized service and hard to obtain plants.

The book is well illustrated with seventy black and white reproductions from old photographs. The end papers are taken from a nurseryman's advertisement of 1845.

Good value at $15.00 plus $2.00 p. & p. from the author, c/o Botanic Gardens, North Terrace, Adelaide, 5000. All copies are signed and the edition is limited to 1000 numbered copies.

T.J. Nottle

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Plants wanted

Mr M.E. Forster, P.O. Box 3, Oyster Bay, N.S.W. 2225, is seeking Pleiones - species, cultivars or hybrids.

Mrs J. Churchill, 'Kiloren', Hay Street, Crookwell, N.S.W. 2583, is seeking Hostas, again species or cultivars.

Mr Gordon Julian, 18 Fromalls Street, Toowoomba, Qld., 4350, is seeking seeds or bulbs of the following:

Pseudomuscari azureum
Puschkinia scilloides
Oxalis adenophylla
Romulea grandiscarpa
Romulea tempskyana

Mr E.E. Heckendorf, 'Mount View', Lockhart, N.S.W. 2656, is seeking the following plants for the Galore Hill Conservation Project (see article in last month's 'Garden Cuttings').

Grevillea striata (Beefwood)
Heterodendron oleofolium (Rosewood)
Ereomophila longifolia (Long leafed Paperbark)
Capparis mitchelli (Wild Orange)
Grevillea nematohylia (Waterbush)
Casuarina decaisneana (Desert Oak)
Acacia gambagei (Gidgee)
Acacia homolophylla (Yarran)
Acacia estrophiolata (Ironwood)
Hakea sebera (Cork Bark Tree)
Hakea davaricarta (Small leaf Cork Bark Tree)
Melaleuca glomerata (Inland Paperbark)

Mrs Helen Gammage, 8 Rolfe Place, Chapman, A.C.T. 2611, is seeking *Chimomanthus fragrans* (the winter flowering Allspice) and Fritillaria bulbs.

Will anyone who is able to help with these requests please communicate direct with the persons named, and not with 'Garden Cuttings'.

English Gardens No 6
Hinton Ampner, near Alresford, Hamphire

Mr Ralph Dutton of Hinton Ampner is a master of two arts - those of house and of garden. He is a recognized authority on garden design and on Georgian and Regency furniture.

The history of Hinton Ampner goes back to the Middle Ages, when it was the property of the Almoner of St. Swithin's Priory in Winchester, but the house which Mr Dutton inherited was a Georgian one, enlarged and Victorianized in the last century. He encased the old house in weathered brick, added bow windows, and in the garden retained only the stone balustrade made by his father, and the old walled garden.

In 1960 the house was burned down, and all the precious furniture destroyed; only the outer walls remained. Mr Dutton, undeterred, rebuilt it exactly as it was, but without the attic story.

Fortunately, the gardens were not affected by the fire. They are entered from a forecourt by the east front of the house. A broad flagged terrace, some two hundred metres long, runs the whole length of the house, from east to west. The walls of the house are clothed with magnolias, clematis and wistaria, while at the base of the walls are low growing shrubs, mainly lavenders, purple sage, and the yellow and grey-green of *Phlomis fruticosa* and *Senecio greyii.* The Victorian balustrading to the terrace is covered with roses and clematis.

The second, lower, terrace is grass, and of even greater length, enclosed on its south side by a yew hedge, which is backed by high borders of flowering shrubs. Through the gap in this hedge one arrives at the Long Walk, which runs the full width of the garden, with statues at either end emphasising its length. Turning eastwards one is lead to a sunken garden, also enclosed by a yew hedge; continuing further eastwards the planting is less formal until one comes to a cross vista with a blue and white classical temple to the north; this temple has a swagged frieze and a pediment displaying the Dutton crest; from it one looks down an avenue of limes to an obelisk at the far end.

Next is a croquet lawn with a high pleached screen to the south, and to the north a bank of *Hypericum calycinum* topped with a hedge of golden yews, beyond which can be seen the top of a silver pear, a huge ilex, and a purple beech.

Crossing the Long Walk again one arrives at the Dell, an old chalk pit, whose sides are planted with Giant Hemlock *(Heracleum mantegazzianum), Viburnum davidii* and *V. mariesii.* Hostas, acanthus and astilbes also enjoy this cool and rather damp spot.

One can now return to the front of the house through a horseshoe-shaped area called the Yew Garden. But more is to come. An old orchard, on the site of the old house, is full of flowering cherries and many different bulbs, and its central path leads to a walk of, somewhat surprisingly, calcifuge plants like magnolias, camellias and *Rhododendron cinnabarinum.* Apparantly the chalk here is overlaid with a few feet of good loam, and Mr Dutton could not resist the temptation to increase the range of plants grown.

Finally, to the west of the house, is a classic walled kitchen garden.

Hinton Ampner is the sixth in our series on gardens to be visited during our Garden Lovers' Tour next year.

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A Collection of Amaryllids

by A.J. Lee, South Australia

I have been collecting Amaryllids for the past two and a half years, and now have approximately 3500 plants, about 1000 in pots and the remainder in the garden. My collection comprises more than a hundred species and many hybrids, the rarer plants being seedlings and, unfortunately, only in small quantities.

I have been lucky in that I have found many kind and helpful people, to whom I write regularly, in South Africa, the United States, and England, as well as in Australia. These people have helped me to collect what I have, but I have far from finished yet, and am always on the lookout for new species. I hope one day to start a nursery specializing in Amaryllids.

Some of the plants in my collection are:

Brunsvigia littoralis, radulosa, marginata, orientalis
Callostemma purpurea
Clivia gardenii, caulescens, miniata "Aurea"
Crinum japonicum, johnstonii, macowanii, scabrum, submersum, yemense
Cybistetes longifolia
Cyrtanthus mackenii, o'brienii, falcatus, breviflorus
Eurycles amboinensis
Habranthus advena, gracifolius, robustus, texanus
Haemanthus incarnatus, albiflos, hirsutis, pumilio
Hessea gemmata
Hymenocallis narcissiflora, speciosa, longipetala
Lycoris radiata, squamigera
Nerine masonorum, undulata, krigei
Pancratium maritimum
Paramongaia weberbaueri
Scadoxus puniceus, multiflorus, magnificus
Strummera rubella, watermeyeri
Worsleya rayneri
Zephyranthes grandiflora, aramaseo, mesochloa

(Editor's note: if any reader would like to get in touch with Mr Lee with a view to exchanging plants or seed, his address is c/- The National Bank, Murray Bridge, S.A. 5253. Seed of many Amaryllidaceae species is available from Blombos Nursery, Durbanville 7550, South Africa, but it should be borne in mind that most of such seed has limited viability).

The Lavender Patch

"I sing of smells, scents, perfumes, odours, whiffs and niffs, of aromas, bouquets and frangrances".

Lavender, with its piercing exquisite perfume, has for centuries been known for its soothing and tranquil properties. It is one of the principal herbs used in 'sleep pillows', or it can be sprinkled among sheets and pillow slips; it can even be used in drawers and cupboards to repel moths. Its flowers remain fresh for a week or more and can then be hung to dry in a warm place to be used as required.

You will find the Lavender Patch on the edge of a quiet valley at Kincumber, on the Central Coast of New South Wales. Marian and Frank French bought the two and a half hectares, then a neglected citrus orchard with a dilapidated ninety year old house in the middle of it, about five years ago. After they had painstakingly restored the house and cleared the land of lantana Mrs French began looking for a hobby.

Her original idea was to grow French Lavender for cut flowers, to sell to local florists. Later it was suggested to them that they open up the property as a tourist atttraction, and from this idea the Stillroom was created. Once the verandah of an old house at Top Ryde it now stands on its own in the grounds; in it Mrs French dries, mixes and makes pot pourris; there too are pillows, sachets, pottery, lace hammocks, patchwork and hand-made soaps.

French Lavender *(Lavendula dentata)* is the species grown for cutting, and Mrs French grows ten varieties of it; a stock of plants of most of these is kept for sale. She also grows other herbs with perfumed flowers or foliage, including a range of scented leaved geraniums. The more highly perfumed lavenders used for drying, however, are not successful in this climate and Mrs French buys these from England or from Tasmania. A recent idea is the harvesting of lavender honey from their own bees.

The Lavender Patch is on Cullens Road, Kincumber, 2250.

Growing Lavender

by Marian French

Lavender requires a sunny, well drained position. It prefers light sandy to medium alkaline soil. It needs minimum fertilizing, the best time being just before flowering or after cutting back when new growth is under way. Even then the only fertilizer required is a very light dressing of well rotted manure. We have found poultry manure the best. A light dressing of lime in spring or autumn may also be beneficial.

Lavender is usually grown in hedge form so that when the bushes are fully grown they join together in rows spaced apart to suit cultivation. In the case of *L.dentata* we plant our bushes one metre apart with our rows at two metre centres. Keep the bushes compact, pruning back after flowering, about 15cm all over.

The most satisfactory way of increasing lavender, especially when one wishes to be sure of the variety, is to propagate from cuttings, about 5 to 12cm long, tip or otherwise, autumn or spring being good times. Dip the cuttings in a rooting powder and press into coarse sand for at least half their length. Cuttings should be ready to pot on within six weeks. Lavender may be grown from seed, like many other plants, but may not come true due to cross fertilizing by bees, or because of varieties reverting to their original type. Species do not hybridize readily. I grow all mine from cuttings to be safe, besides it is so much quicker.

MARIAN FRENCH IN HER LAVENDER PATCH.

Species and varieties of Lavender

There is a good deal of confusion about the nomenclature of lavenders, and a number of synonyms are in general use. The three main species in cultivation are:

1. *Lavendula dentata,* generally called French Lavender, with narrow, toothed leaves and purple flower spikes. It is the hardiest of all the lavenders and common in gardens. It blooms continuously for about nine months of the year, the main growth being between autumn, winter and spring. Commercially it is grown for cut flowers, and is not suitable for drying. Blooms will last about a fortnight in water, and as they are available during the cooler months of the year are in demand by the retail florist trade.

L. x allardii is a hybrid betwen *L.dentata* and *L.latifolia;* the leaves tend to be variable but are mostly toothed only on the upper half, and are broader than those of *L.dentata.* The pale mauve flowers are produced on tall spikes in early summer. It normally grows rather taller than *L.dentata,* to about one and a half metres.

2. *Lavendula angustifolia,* commonly called English Lavender. It may also be listed as *L.officinalis, L.spica* or *L.vera.* The leaves are grey, woolly and usually revolute (margins rolled under), the flowers are mauve on tall spike stems. The flowering period is mid-summer. It has the highest oil content of all lavenders and is used in the perfume trade, also for drying for sachets, etc.

There are several different cultivars (most probably contain *L.latifolia)* and the commonest of these are -

L.'Hidcote', an early flowering dwarf, with deep purple flowers
L. 'Munstead', also dwarf and similiar to 'Hidcote' except the flowers are bluish.
L. 'Nana', dwarf, may be a form of 'Hidcote'.
L. 'Nana alba', very compact dwarf form with white flowers.
L. 'Roseà', dwarf, with rose-pink flowers.

3. *Lavendula stoechas,* commonly called Spanish, sometimes Italian or Mediterranean Lavender. The leaves are green or grey-green, entire, revolute and with prominent venation, smaller than those of the other species. Flowers are deep purple on short stems, and the flowering period is mid-winter to early summer. In Victoria it has escaped from cultivation and areas of grazing land have become heavily infested; in 1920 it was proclaimed a noxious weed in this State.

Propagation of Magnolias from soft-wood cuttings

Magnolias are notoriously hard to propagate from cuttings, but considerable success was achieved during experiments at the University of Zagreb in Yugoslavia. *M.stellata, M. x soulangeana* and *M. x soulangeana* 'Alexandrina' were used, and cuttings were taken from the second week in June until late summer after terminal growth had ceased and the wood had become partly matured. Heel cuttings of half-ripened shoots were collected from lateral branches in the lower part of the crown, usually about 6 to 10 inches long. The bottom leaves were removed, then the second leaves were reduced in size. Cuttings were dipped in a hormone rooting powder (NAA plus Captan). The rooting medium was 3 parts of coarse sand and one part of Perlite. Greenhouse temperatures varied from 18 to 40 degrees Celsius during the day, and from 14 to 33 degrees at night, and the cuttings were rooted under intermittent mist. The following percentages of rooted cuttings were achieved -

M.stellata - 18 to 62%
M. x soulangeana - 70 to 100%
M. x soulangeana 'Alexandrina' - 60 to 100%

(Source: M. Jurkovic, Department of Botany, University of Zagreb: International Horticultural Congress Abstracts No. 1690, 1982)

More about sundials

Following the article about Sundials in our August issue, we are informed that a cast bronze sundial calibrated for the Sydney region is available from Garden Art Fountains Pty. Ltd., 534 Parramatta Rd, Ashfield, N.S.W. 2131 (Tel: (02) 798-8370). Garden Art Fountains also market an Armillary type sundial, on either a Zodiac or a Seahorse base, which can be set for any latitude.

Sundials Australia, of Adelaide, who were mentioned in the August issue, have also written to us to say that they just received an order for three sundials from Jeddah, in Saudi Arabia!

Gertrude Jekyll on colour

Perhaps the grey garden is seen at its best by reaching it through the orange borders. Here the eye becomes filled and saturated with the strong red and yellow colouring. This filling with the strong, rich colouring has the natural effect of making the eye eagerly desirous for the complementary colour, so that, standing by the inner yew arch and suddenly turning to look into the grey garden, the effect is surprisingly - quite astonishingly - luminous and refreshing. One never knew before how vividly bright ageratum could be, or lavender or nepeta; even the grey-purple of echinops appears to have more positive colour than one's expectation would assign to it. The purple of the clematises of the Jackmani class becomes piercingly brilliant, while the grey and glaucous foliage looks strangely cool and clear.

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Some Nurseries to visit

by Helen Gammage

"What does one know of gardens who only their own garden know ...?" I visit many different gardens and nurseries and by doing so I have added to my knowledge a hundredfold.

The A.C.T. has many nurseries, but a tiny one, Conolly's Geranium Nursery in Turner is very attractive. Like so many specialist nurseries this one has grown out of a great love for the plants and started with a large collection. I found geraniums here for which I had been searching for years - and the prices were less than anywhere else. 'Tartan' appealed particularly among the coloured leaf varieties, and there are dwarfs and miniatures and ivy-leaved geraniums in great profusion. Well worth a visit.

Another in the A.C.T. is the Blue Range Camellia Nursery, and this is where I found the elusive yellow Camellia. They have a great many Azaleas, too, and you can get reliable advice on growing these plants, as well as suitable lime-free compost.

Also in Canberra is the Mountain View Iris Nursery, in Higgin. Here you will find dwarf and tall iris, including many rare types. Well worth a visit in the flowering season.

Then to Adelaide to visit Eve's Garden. This is one of those small nurseries in which each plant is loved. It was so neat and clean that I came away very impressed. I was able to buy some Haemanthus bulbs, also Lily of the Inca bulbs and a deep purple Dimorphotheca.

While most tourists visit the McLaren Vale in South Australia for the wineries, garden lovers will also find an interesting nursery in Kangarilla Road - Perry's Nursery. The stock is not large, but you will find several 'hard-to-get' trees and shrubs. There are Avocados in many varieties, including Reed which produces delicious round fruit; there are yellow-fruited Tamarillos, grafted Walnuts, Pecans and Mulberries, Macadamias, Quondongs and Lychees (sometimes spelt litchi). There are also soft fruits like raspberries, loganberries, red, white and black currants, and gooseberries. Or you may like to try a Hazelnut or a Chestnut, or even a Cape Gooseberry.

Totem Planters

An ingenious space saving planter is now being made and marketed by Andrew Tim, of Newport Beach, a northern suburb of Sydney.

It consists of a 150mm diameter pipe of rigid PVC, sprayed with three coats of polyurethane, and with planting holes, each 50mm in diameter, along it's entire length - rather like an elongated strawberry pot in fact. It's overall height is 1.53 metres (5 feet) and one planter can hold twenty-seven plants. There is also a half-size version 0.73 metres (2½ feet) high. The standard colour is white; other colours are available. With each planter is a shallow dish, in the centre of which is a cone into which the base of the planter fits. The dish can be filled with pebbles, or alternatively with exposed aggregate concrete. The planter is filled with potting compost and the whole structure is then completely stable and cannot fall over.

These should prove ideal for home unit verandahs or for any narrow confined space where a tall planting effect is called for.

The retail price of the full-length planter is $69 and of the half-size $39, freight extra. All enquiries should be sent to: Totem Planters, P.O. Box 34, Newport, Beach, N.S.W. 2106 or telephone (02) 918-0909.

Australian Gardening Books

A selection of Australian gardening books is available from Henry Lawson's Bookshop, 127 York Street, Sydney (phone (02) 29 7799). This bookshop was recently awarded the Michael Zifcak Medal by the National Book Council for leadership in bookshop design, book display and presentation, and for its unique concept of offering only Australian books. A free checklist of gardening books is available - enclose a stamped addressed envelope with your request.

Using Industrial Waste for Heating Glasshouses

At the Glengarioch Whisky Distillery, in Aberdeenshire in Scotland, waste heat is being used to heat about 0.7 hectares of glass and polythene houses, which are used largely for growing tomatoes. In the distillation phase large amounts of water are needed to condense the distillate, and at this distillery about 4000 litres of water are produced every hour, about half of which is at a temperature of 80 degrees Celsius; before it can be re-used this has to be cooled, so it is now passed through the tomato houses in a conventional pipe layout with fan-assisted radiation.

At Burnroot Farm, also in Aberdeenshire, bark strippings, sawdust and wood chips from the local forestry industry are being burnt in a 'Passat' wood burning stove to heat a small area of glasshouses, while in America, at the Pennsylvania Power and Light Company generating station, warm water from the power plant is circulated through polyethlene pipes to heat 1.1 hectares of glasshouses; under normal conditions this reject heat can provide all the energy required.

One of the largest examples in the world of using reject heat for glasshouses, however, is at the Staplefield Incineration Plant, outside Hamburg. Here about 320,000 tonnes of domestic rubbish are incinerated every year. The heat generated by this incineration process is used to produce steam in two boilers; some of this steam is used to run the plant, but most of it powers a turbine which supplies enough electricity to the public grid to satisfy about 45,000 domestic users. However, only about 70% of the available heat inside the turbine can be used; the remainder, which is called 'condensation loss', is formed into water in air-condensers and fed back into the boiler. A heat exchanger ensures that the water reaches the required temperature of 45 degrees before it passes through the heating pipes of two adjacent commercial nurseries, one growing roses for the cut flower trade and the other growing pot plants. After it has heated the glasshouses it returns to the incineration plant for recycling later. These two nurseries total 100,000 square metres in extent, and the heating system has been designed in such a way that the waste heat from the plant maintains an ideal temperature provided that the outside temperature does not fall below minus 5 degrees Celsius; if the outside temperature is lower than this, supplementary oil-fired heating is needed.

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Tree bark in potting composts

Tree bark is being used more and more in potting composts as an alternative to peat moss, as the latter becomes scarcer and more expensive. However, whereas peat moss is low in nutrients, tree bark contains relatively high concentrations of potassium, phosphorus, magnesium and manganese. But it tends to immoblize nitrogen because of its high C/N ratio under high biological activity. Additional applications of nitrogen, therefore, are generally necessary when using tree bark based potting composts, and lime and soluble iron (i.e. iron chelates) may be necessary to compensate for the high manganese content.

(Source: E. Meinken, A. Jungk and H.C. Scharpf, Institute of Plant Nutrition, University of Hanover: H-D. Molitor, Institute of Ornamental Plant Growing, Gersenheim, Germany: International Horticultural Congress Abstracts 1713 and 1714, 1982)

A new irrigation system

The following, believe it or not, is taken from Congress Bulletin No. 6 of the XXIst International Horticultural Congress, and is dated Friday 3rd September, 1982. Obviously, horticultural science has progressed farther than some of us believed (or has it?)

HERE'S A NEW PALM IRRIGATION SYSTEM DEVELOPED BY LEADING HORTICULTURAL SCIENTISTS:-

String (A) moves (B). That movement scares cat (C) who lifts (D). Thus ball (E) rolls down, falls into tea cup (F) from where spring (G) throws it into cup (H). The string (I) is pulled, thereby loosening support (J) causing the board (K) to fall down. The milk can (L) falls on the spoon (M) lifting the shoe (N) via the string (O). Thereby the water suspender (P) starts spraying, scaring the little dog (Q) who has not taken a bath for a long time. Therefore he does three somersaults on top of the basins (R). The water is collected and sprayed through (S) finally to reach the palm (T).

Flying Foxes - Carbide and Strobe Lights

by B.J. Watson, Kamerunga Horticultural Research Station, Queensland (reproduced by permission from Newsletter No. 14 of the Rare Fruit Council of Australia)

In mid-March 1982 we had three Rambutan trees beginning to mature fruit. One tree had fruit ripening slightly ahead of the others. Quite a number of fruit on this tree were being eaten by flying foxes, so we decided to try out carbide as a deterrent. We had heard that carbide, when hung in a tree, prevented fruit damage, but I had thought that it was most likely an old wive's tale, or only partly effective.

We placed a piece of rock carbide (approx. 60g) in a perspex container (which was relatively waterproof but had vents to allow acetylene gas to disperse) and hung it in the centre of the tree.

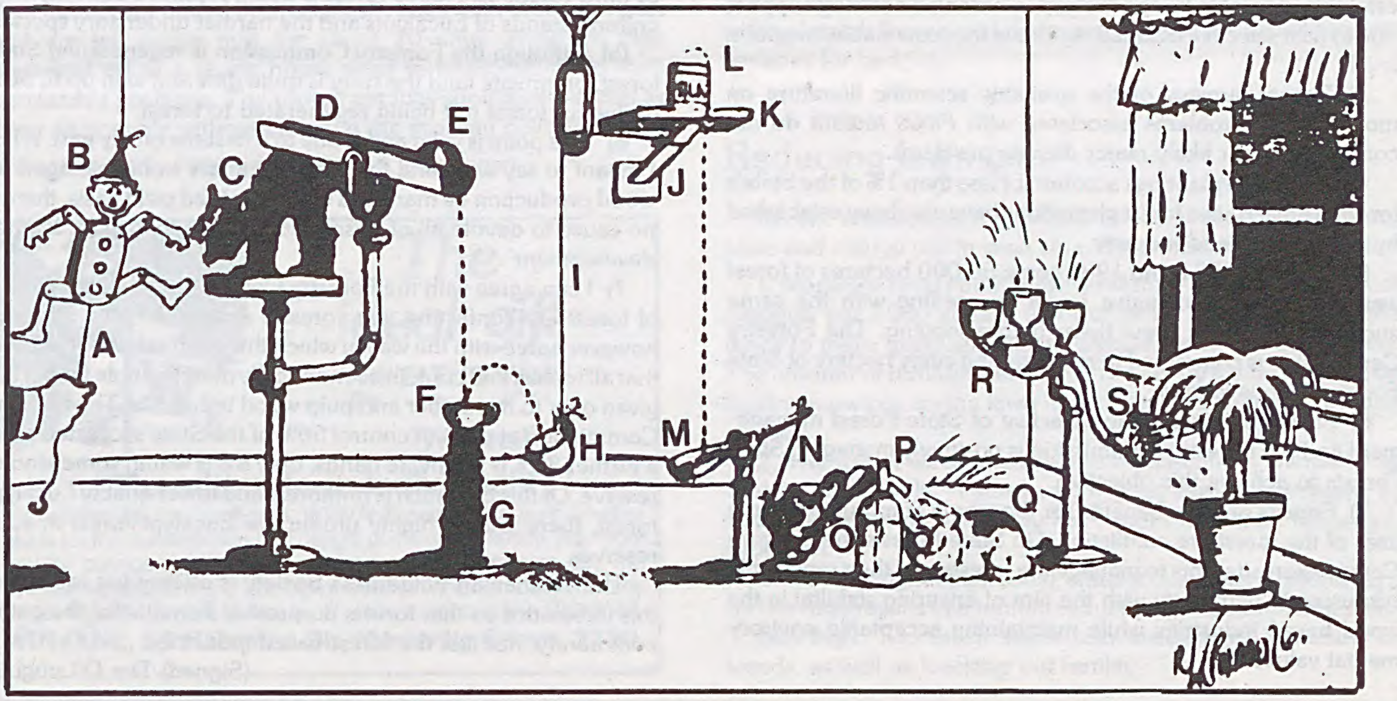
Incidence of flying fox damage stopped over-night and this must be regarded as fairly substantive evidence of carbide effectiveness, since usually damage to fruit increases after initial flying fox invasion.

We provided carbide containers for the other two adjacent trees and the overall result was less than 3% damage to the total crop. However a tree without carbide some 50 metres away has had every maturing fruit taken by flying foxes - in fact they have taken quite immature fruit.

The container must be one which will prevent rain reaching the carbide and dissipating it too quickly, yet having ventilation. A 60g piece of rock carbide appears to last from 6 to 10 days, depending on humidity.

The other story concerns strobe lights. A few of these lights were purchased by North Queensland litchi growers, but most were installed in orchards after fruit had reached the green-mature size. Results were not encouraging. However, one Cairns grower observed a lessening in damage towards the end of his crop. It may well be that the lights have to be operated well in advance of fruit maturity.

In any event the use of carbide and strobe lights will appeal to all nature lovers, and we in the D.P.I. would be pleased to hear reports of results of their use.



Tasmanian Forests

In our April 1982 issue we published an article under the heading 'Tasmanian Forests', written by Tim O'Loughlin of the Tasmanian Wilderness Society. In the interests of objective reporting we now publish the following correspondence -

* * *

From Mr. J.R. Quick, Chief Commissioner,
The Forestry Commission of Tasmania:

Dear Mr. North: Recently our attention was drawn to an article on Tasmanian forests contributed by Mr. T. O'Loughlin. Many of the stated facts on Forestry Commission related aspects were incorrect. Attached is a summary of the facts on Tasmanian Forestry which we would be pleased if you could publish for the interest of your readers.

(Signed) J.R. Quick, Chief Commissioner

Tasmanian Forest - the facts:

Mr Tim O'Loughlin's article in the April volume of 'Garden Cuttings' has a good outline of the biology of the forest but is factually incorrect on aspects of forest use and the future for Tasmania's forests. Discerning gardening readers may be interested to note:-

1) Approximately 15% of Tasmania's land area is 'Reserved Land'. Reserved land includes:- National Parks, Nature Reserves, Recreation areas, Forest Reserves and other special reserves. Adequate reservation of native plant communities is essential and is recognized by the Forestry Commission. Eight of a total of twenty-three Forest Reserves in Tasmania are primarily managed by the Forestry Commission for nature conservation purposes.

2) The radiata pine planting programme is not the result of the recently accelerated hardwood pulp industry. The pine programme originally aimed at diversifying available timber for Tasmanian markets. In more recent times pine plantations were established to help bridge the gap in hardwood sawlog supplies due to past selective overcutting above the sustainable long term level.

3) Recent surveys of the available scientific literature on monocultural problems associated with *Pinus radiata* do not confirm fears for likely major disease problems.

4) *P. radiata* plantings account for less than 1% of the State's forested area. Native forest plantations have also been established by government and industry.

5) Between 1971 and 1981 some 50,000 hectares of forest were regenerated to native forest by seeding with the same eucalypt species as grew there before logging. The Forestry Commission is committed to regenerating every hectare of State Forest which is logged.

6) Sustained yield is the objective of State Forest management and the Forestry Commission is positively managing State Forests to achieve this objective.

7) Forests provide benefits for the whole community. Some uses of the forest are conflicting. On State Forests the Forestry Commission attempts to manage the forests and their renewable resources in perpetuity with the aim of ensuring stability in the wood based industries while maintaining acceptable environmental values.

From Mr. Tim O'Loughlin,
Tasmanian Wilderness Society, Hobart:

Dear Tim: Thank you for giving me the opportunity of replying to the Forestry Commission's criticism, With regard to their points :

1) At no stage in my article did I mention the amount of reseved land within Tasmania, therefore I take this not as a criticism but as a statement by the Forestry Commission, as such it is correct. However, I would like to put the figure of 15% in perspective. It is correct that the Forestry Commission manages eight of its twenty three reserves with conservation as a primary or secondary function, but this represents only 5,238 hectares - a mere 0.07% of Tasmania's land mass area. Very little of our prime forests are reserved.

2) This is a debatable point. Some, notably members of sawmilling groups, suggest that the shortfall has been caused by premature cutting of potential sawlogs by the pulp and paper industries. The Forestry Commission claims that large volume cutting for pulpwood occured too late to cause the shortfall though it could be a future problem if management is not strict.

3) Plantings of single species (i.e. monocultures) are generally more disease prone that natural plant associations.

4) This is incorrect even on Forestry Commission's figures. In my article I used figures from the Sinclair report (1978), the quoted 1.5% was for both private and Forestry Commission pine plantings. Current Forestry Commission figures (June 1981) state that 1.2% of the State's forested areas has been planted to pine (i.e. greater than the 'less than 1%' they claim). Figures for private plantations are at the time of writing unavailable but if they are running at a similar level to 1978 the total area of the State's forest under pine plantation is approximately 1.64%.

5) This is again an area I did not cover in my article. I am aware of the Forestry Commission's policy to regenerate every hectare of forest logged and I applaud it. I would, however, like to clarify some points:

(a) The Forestry Commission resows with selected Eucalypt seed; other species, particularly the less hardy under-story rainforest species are not resown. With the short rotation times envisaged many of these species will not survive into the second or third rotations. Native forest is being replaced but only with uniform stands of Eucalypts and the hardier understory species.

(b) Although the Forestry Commission is regenerating State forest, on private land the story is quite different with up to 50% of the cut forest not being regenerated to forest.

6) This point is valid and is due to a mistake on my part. What I meant to say was "and the forests that are to be managed for wood production be managed on a sustained yield basis, there is no cause to devote all of Tasmania's forests to 'hell for leather' development".

7) I can agree with the Forestry Commission that some uses of forest are conflicting, e.g. forestry and wilderness. I cannot however agree with the way in which this conflict is resolved - i.e. that all forests that contain economically merchantible timber are given over to the timber and pulp wood industries. The Forestry Commission at present control 56% of the State's forested area, a further 36% is in private hands, only 8% is within some kind of reserve. Of this 8% much is rainforest and lower quality Eucalypt forest, there is little highly productive Eucalypt forest in such reserves.

The Tasmanian Wilderness Society is attempting to redress this imbalance so that forests do provide benefits for the entire community, not just the forest-based industries.

(Signed) Tim O'Loughlin

Papaws from cuttings

South African horticulturists have worked out a method of propagating papaya (papaws) from cuttings. This now means that selected plants can be mass-produced and the variability in fruit size and quality so often encountered in most papaya plantations can be eliminated by the production of cuttings.

Near Pieter Maritzberg, uniform, good quality papaw fruits, produced on plants propagated vegetatively by cuttings have brought returns as high as R15,000 per hectare for growers. The variety 'Hortus Gold' is a female plant and has been vegetatively propated by rooting leafy cuttings under intermittent mist with a bottom heat of 25°C.

For successful rooting of leafy cuttings strict sanitation is essential otherwise stem rots can kill the cuttings. The well drained rooting medium must be sterilised by steam or chemicals between successive batches of cuttings. Leafy cuttings are taken from young side shoots during the summer when the stem is still green. They normally take 4 to 6 weeks to develop roots. Cuttings can also be taken in the spring and autumn but the success rate is lower.

The technique is to take cuttings which are at least 20cm long and at least 2 cm. in diameter and remove all leaves except the 3 to 4 developing ones with vertical leaf stalks. All other leaves are cut back leaving about 10cm of the leaf stalk. The reason for leaving the leaf stalks is to ensure that if bacterial infection occurs at the cut end of the stalk it will not be able to progress far before natural abscission develops at the base of the petiole.

By cutting the leaf stalks long it prevents the chance of bacterial infection of the stem of the cutting. After trimming the leaves the base of the cutting is dipped in a root promoting powder such as indole-butyricacid (IBA). A powder formulation of 1 percent IBA or a concentrated quick dip of the cutting in a 2000 to 4000 p.p.m. IBA in 5 percent ethanol gives good results. Bottom heat at 25°C applied by electric heating cables beneath the rooting medium also hastens rooting.

Intermittent mist applied during the daylight hours keeps the leaves cool and turgid. This allows plants to photosynthetize carbohydrates while the roots are being incubated. Once rooted the cuttings are potted in small plastic bags, with drainage holes and are left under mist for about 10 days. They are then hardened off in a shade house prior to transplanting to their permanent positions. The rooted cuttings should be planted as deep as possible without covering the growing point with soil.

(Extract from May 1982 issue of E.F.G.A. Newsletter)

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A Hedge Plant suggestion

One tends to become rather stultified in suggesting plants that will make a dense, impenetrable and yet attractive hedge.

But why look beyond *Rosa rugosa* or one of its varieties? One sees rugosa hedges everywhere in Holland and in Northern Germany, and they are among the most accommodating of plants. Hardy, of sturdy growth, amazingly disease-resistant, and possessed of what Gertrude Jekyll described as "a somewhat ferocious armament of prickles", one could hardly wish for a better hedge plant. They will grow in sand, they will grow by the seaside, for, as E.H. Wilson once said "they laugh at salt spray", and they are hardly ever affected by black spot or mildew.

A light clipping all over in winter, plus the removal of old wood, is the only pruning required. Furthermore the large orange-red hips of *R. rugosa* are, weight for weight, a far superior source of Vitamin C to oranges.

Apart from the type, 'Scabrosa' with huge pale magenta flowers sometimes 12cm in diameter, 'Frau Dagmar Haastrup' with pale pink flowers and deep crimson hips are two of the best varieties for hedges.

Reducing lawn care

Recent research in the United States is aimed at reducing costs and energy use in lawn care. Recommendations include -

1. Moderate rather than lavish fertilizing - no more than 2lb. of nitrogen per 1000 square feet per year. Too much nitrogen tends to make grass sensitive to disease, wear and desiccation. The amount of fertilizer needed can be cut by a third to a half by leaving mowings on the lawn in the case of all but mat-forming grasses.

2. The use of weed, disease and insect control chemicals as seldom as possible. A sturdy, tight grass carpet, unstressed by improper watering will rarely have more than mild temporary problems.

3. Mowing higher than usual, and not overwatering. Mowing 2 inches high results in a tenfold reduction in weeds over mowing 1 inch high. Too much water also encourages a number of weeds, as well as leaching out fertility.

New lawnmowers from Victa

This spring Victa has presented its most comprehensive range of lawnmowers ever with the introduction of some new and different models. A petrol driven cylinder mower, three lightweight electrics and two hand mowers have been added to the range. These, with the Victa ride-ons, present a choice of mowers for any size lawn and every type of grass cutting job - from small fine lawn to thick jungle growth.

Electric Rotary

The 300mm (12 in) Rotary Electric Lightweight 'Rotamo' is ideal for those with very small lawns in confined and tight areas, particularly around swimming pools. Ladies who have to mow lawns will appreciate the Rotamo's lightweight 8.25kg (18.15lb) and its ease of handling. The handle has been designed so that the mower can be used with one hand like a vacuum cleaner for easy control of the cord. A rear mounted grasscatcher, three height settings, a 532 watt motor and the Victa safety On/Off switch, all add up to an impressive range of features.

Electric cylinder type

Lightweight Cylinder electric mowers like the new Victa 300mm (12in) 'Easymo' and the Victa 350mm (14in) 'Villamo' have not been seen on the Australian market for many years. Yet in the United Kingdom where small lawns abound they are literally taking the market by storm. Gardeners in the United Kingdom love striped lawns. The Easymo and the Villamo counterparts provide that at a reasonable price, and like most Australians the UK mower owners prefer to have mowers with grass catchers. These mowers, while designed for more compact lawns, will perform extremely well over larger areas. Their versatility in tackling even long rough growth is another reason for their popularity and increased demand. The Villamo has a unique grass compactor fitted into its rear catcher. A simple pull on a cord packs the grass into the back of the catcher allowing for more grass collection. The Easymo carries a front catcher like the more conventional cylinder mowers.

THE VICTA 'VILLAMO' ELECTRIC CYLINDER MOWER.

THE VICTA 'ROTAMO' ELECTRIC ROTARY MOWER

Other features that will prove popular with those people looking for lightweight electric mowers are - their weight, Villamo 11kg (24lb), Easymo 8kg (17.6lb), catchers 1.25kg (2.75lb) and the Victa designed Easymo handles with simple On/Off switches, rear rollers, simple height adjustments and of course their versatility in grooming fine lawns and cutting down long grass. Power for the Easymo is from a quiet and efficient 323 watt motor, while the Villamo carries a 386 watt motor.

Hand Mowers

Five years ago some people would have thought of hand mowers as part of Australian history. But with the desire to keep fit many people have turned back to pushing a hand mower across their lawn as a novel and satisfying way of keeping themselves trim and in good health.

The Victa 'Jogger' 300mm (12in) and 'Sprinter' 350mm (14in), both aptly named, will answer these needs, and those of people with small areas of lawn who don't wish to spend money on a power mower.

Power cylinder mowers

Large power cylinder mowers in the past have been thought of as units strictly for fine lawn grooming, which has of course restricted their appeal. The new Victa 'Turfmaster 430' will change all that. A quick change of its fine lawn roller to a special side wheel attachment enables the Turfmaster to operate in rough grass areas. A Suffolk 98cc petrol motor with easy start solid state electronic ignition literally powers the Victa Turfmaster through all kinds of grass, long or short, wet or dry. It is the ideal groomer for the fine lawn enthusiast with a few surrounding rough patches.

New Rotary Power Mower

Finally Victa has added a new mower to its successful metal deck range which saw the Commando as its star last year. The new Victa 'Sabre' carries all the popular features of the Commando, like the Victa two stroke engine with super-start and a two year engine warranty, plus the exclusive Victa chrome comfort grip handle and ball bearing wheels that provide easier more comfortable and manoeuvrable mowing. The rear wheels are the largest Victa make for a domestic mower - 200mm (8in) in diameter.

A liner for hanging baskets

At this year's International Horticultural Congress in Hamburg a paper was presented by A.G. Biggs and K. Frances Biggs, both of Hawkesbury Agricultural College, Richmond, N.S.W. with the title 'Environmental conditions within hanging baskets'.

This paper described how a material with a natural appearance for lining hanging baskets was developed and tested in Australia. This was a non-woven material similar to that used in domestic and industrial abrasive webs, but densified for horticultural use. It is now being marketed under the name 'Scotchbark'.

In the tests this material was compared with natural bark, preformed coconut fibre and fibreglass as a lining material for wire-framed baskets. Reaction to bright sunlight and susceptibility to fungal and other breakdown organisms was tested, as were water retention and temperature insulation properties. Subjective aesthetic assessments were undertaken, along with work study tests and an economic appraisal of the materials.

Water retention tests in different environments during winter and summer showed that Scotchbark and pre-formed coconut fibre liners were useful - a particularly important advantage during the harsh drying conditions of our summer. Scotchbark and coconut fibre liners were also predictable and uniform in their water-loss characteristics.

The open-weave properites of Scotchbark and coconut fibre liners conferred superior temperature insulation properties compared with natural bark and fibreglass products.

Notices -

'Garden Cuttings' Binders

We now have a small stock of binders. These are 2-ring binders, covered in dark green PVC buckram, with 'Garden Cuttings' in gold letters down the spine. After looking at magazine binders of various types we decided that, for a publication of this size, the ring binder was the most suitable. It does, however, mean punching two holes in the margin - however the margin has ample width to allow this without interfering with the printed matter. Twelve copies or more will fit comfortably and conveniently into one binder.

The price is $5.75 each, including postage and packing. Orders and all enquiries should be sent to 'Garden Cuttings', P.O. Box 279, Edgecliff, N.S.W. 2027.

English Gardens Tour, June 1983

At the time of going to press, there are not too many vacancies left on this tour. Make your booking soon with Allways Travel Pty. Ltd., 82 Elizabeth Street, Sydney, 2000, or with The Travel Company, Nauru House, 30 Collins Street, Melbourne, 3000.

The tour will be from 11th June to 1st July, the best time of the year for seeing English gardens. It will be escorted by Tim North and Julie Keegan.

A new Celosia

Celosia, or Prince of Wales Feather, has in the past been characterized by rather strident colours - golden yellows, crimson and magenta. The name, in fact, comes from the Greek 'kelos' meaning burnt.

Yates have, this spring, introduced a new Celosia with a much softer colour. Called, appropriately, 'Apricot Brandy' it was one of the award winning flowers chosen by the nursery industry in the U.S.A. last year. The soft apricot of the plumes, on dwarf compact plants, blends well with many other annuals.

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Growing potatoes from seed

Several seed companies in the United States will be offering seed of the new potato cultivar 'Explorer' this year, the first successful open-pollinated potato from seed. It is intended to start life indoors and to be transplanted into gardens. Planting seed costs only 20% that of vegetable propagation. 'Explorer' potato tubers average about 4 oz. - typical size for baking potatoes is 8 oz. Most gardeners in the United States can expect to be able to obtain potato seedlings just as they do seedlings of tomato or capsicum.

(from Hort. Science, the Journal of the American Society for Horticultural Science, Vol 17, No. 1, February 1982)

Root regenerators

Many desirable ornamental plants are not generally grown by nurserymen because they are too difficult to transplant successfully; they do not generate new roots readily. It has been found that a root-soak treatment with indoleacetic acid (IAA) increases root generation by up to 55%, while a solution of IAA, kinetin and gibberellic acid is even more effective.

Dr Bruno C. Moser, of Purdue University in the United States, has achieved good results using a toothpick implant. Toothpicks are soaked in 100 mg IBA plus 100 ml of 95% ethanol overnight and air dried prior to being inserted into holes drilled in tap roots or lateral roots of at least ¼ inch diameter. The IBA is released from the toothpick as a gradual process after the plant is put back into the ground. New roots stimulated by this treatment appear both at the site of insertion of the toothpick and at the cut surface at the end of the root in which the toothpick is inserted. This gives a two-layered root system to the transplant.

Possibly this system could be used with Hormone 20, a proprietory product commonly available in nurseries and retail garden centres. Hormone 20 is a combination of IBA with NAA.

Slow release weedkillers

A new concept of slow release weedkillers is based on the principle that if a herbicide of a known solubility in water is mixed with an inert material, and a tablet is made from this mixture, the release of the herbicide can be controlled, the mechanism of release being diffusion.

The first successful formulation was Alachlor mixed with plaster of Paris, and formed into tablets 13mm in diameter and 8mm thick. Successful weed control was maintained in 155mm plastic nursery containers for 7.5 months under glasshouse conditions, and for 4 months in the field.

(Source: B.P. Verma and A.E. Smith, Department of Agricultural Engineering, University of Georgia: Abstracts XXIst International Horticultural Congress, 1982)

Synthetic topsoil for land reclamation

A synthetic topsoil composed of sand, friable clay and dried digested sewage sludge has been used by the Department of Parks and Recreation in Singapore to establish trees and shrubs on reclaimed land. The friable clays found in parts of Singapore mix readily with the sand and sewage; the sand is that dredged in the reclamation process. Analysis of the sludge for twenty seven elements showed only moderate levels of heavy metals with little adverse effect on plant growth.

Quote of the month

Gardens are the link between men and the world in which they live for men in every age have felt the need to reconcile themselves with their surroundings and have created gardens to satisfy their ideals and aspirations.

Dame Sylvia Crowe

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garden cuttings

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